

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/KR03/00857

## A. CLASSIFICATION OF SUBJECT MATTER

IPC7 C07F 9/22, C07H 21/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7 C07F, C07H

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
Korean Patents for inventions since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
STN(Registry, CA)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No. |
|-----------|--|-----------------------|
| X         | US 5969128 A (LA REGION WALLONE) 19 OCTOBER 1999<br>See example 1  | 1, 2                  |
| X         | Marie-Laurence Fontanel et al.'Sterical recognition by T4 polynucleotide kinase of non-nucleosidic moieties 5'-attached to oligonucleotides', Nucleic Acids Research, Oxford University Press, 1994, Vol. 22, No.11, pp. 2022-7<br>See p2024, table 1                                    | 1, 2                  |
| X         | De Vos, M. J. et al. 'New non nucleosidic phosphoamidites for the solid-phase multi-labeling of oligodeoxyribonucleotides, 1994, Vol.13, No.10, pp. 2245-65<br>See the whole document  | 1, 2                  |
| X         | Wilk, Andrzej et al.'Backbone-modified oligonucleotides containing a butanediol-1,3 moiety as a vicarious segment or the deoxyribosyl moiety- synthesis and enzyme studies ', Nucleic Acids Research, Oxford University Press, 1990, Vol. 18, No.8, pp. 2065-8<br>See the whole document | 1, 2                  |
| A         | US 6455071 B (ISIS INNOVATION, LTD) 24 SEPTEMBER 2002<br>See claim 2   | 1, 2                  |

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

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"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

24 SEPTEMBER 2003 (24.09.2003)

Date of mailing of the international search report

25 SEPTEMBER 2003 (25.09.2003)

Name and mailing address of the ISA/KR



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| C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT |   |                       |
|---|---|-----------------------|
| Category*   | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
| A   | Shishkina, I. G. et al. 'A New Method for the Postsynthetic Generation of Abasic Sites in Oligomeric DNA', Chemical Research in Toxicology, 2000, Vol.13, No.9, pp. 907 ~ 912<br>See the whole document | 1, 2                  |
| A   | Shchepinov, Mikhail S. et al. 'Oligonucleotide dendrimers : stable nano-structures', Nucleic Acids Research, 1999, Vol 27, No. 15, pp. 3035-41<br>See the whole document                                | 1, 2                  |
| A   | Claus Scheuer-Larsen et al. 'Phosphoramidites Derived from Tertiary Alcohols.', Tetrahedron Letters, 1998, Vol. 39, No. 45, pp, 8361-8364<br>See p. 8362(compound 10)                                   | 1, 2                  |

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/KR03/00857

| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s) | Publication<br>date |
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| US5969128A                                | 19. 10. 1999        | AT168696T                  | 15.08.1998          |
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|   |                     | W09910362A1                | 04.03.1999          |